APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/456,877	12/08/99	SHIMIZU	M	25481.772

MM91/0618

DAVID L. FEHRMAN
MORRISON & FOERSTER LLP
555 WEST FIFTH STREET
SUITE 3500
LOS ANGELES CA 90013-1024

EXAMINER
FLETCHER, M

ART UNIT	PAPER NUMBER
2837	

DATE MAILED:

06/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will
  be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this
  communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 12, 2001* _____ .

2a) ☐ This action is **FINAL**.　　　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-78* _____ is/are pending in the application.

　　4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *1-25 and 43-56* _____ is/are allowed.

6) ☒ Claim(s) *26-28, 30-32, 34-39, 41, 42, 57-59, 61-66, 68-70, and 72-77* _____ is/are rejected.

7) ☒ Claim(s) *29, 33, 40, 60, 67, 71, and 78* _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

　　a)☐ All b)☐ Some* c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _5_

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2.   Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Wada et al.

(4,128,032).

As recited in claim 26, Wada et al. disclose a tone waveform synthesizing apparatus

comprising: a storage adapted to temporarily store a plurality of tone waveform samples said

storing permitting, the writing and reading, independently of each other, in a parallel fashion as

discussed in column 4, lines 34-36; and a processor coupled to said storage and adapted to

generate a plurality of tone waveform samples in advance of predetermined reproduction timing

said processor adapted to control writing of the generated tone waveform samples into said

storage and reading out the tone waveform samples from said storage at said reproduction timing,

the writing and reading into and from said storage being controlled independently of each other

and also in such a manner that an advance of the writing does not outpace an advance of the reading as discussed in column 5, lines 2-10 and lines 17-32.

3.   Claims 26-28, 30-32, 41, 42, 57-59, 68-70, are rejected under 35 U.S.C. 102(e) as being anticipated by Kuribayashi et al. (5,668,334).

As recited in claims 26 and 68, Kuribayashi et al. disclose a tone waveform synthesizing apparatus comprising: a storage adapted to temporarily store a plurality of tone waveform samples said storing permitting, the writing and reading, independently of each other, in a parallel fashion as discussed in column 8, lines 14-27; and a processor coupled to said storage and adapted to generate a plurality of tone waveform samples in advance of predetermined reproduction timing, said processor adapted to control writing of the generated tone waveform samples into said storage and reading out the tone waveform samples from said storage at said reproduction timing, the writing and reading into and from said storage being controlled independently of each other and also in such a manner that an advance of the writing, does not outpace an advance of the reading as discussed in column 8, lines 37-50; column 8, line 59 through column 9, line 13; and column 9, line 56 through column 10, line 22.

As recited in claims 27 and 42, Kuribayashi et al. disclose a tone waveform synthesizing apparatus, wherein said storage permits the writing and reading independently of each other in accordance with separate write instruction and readout instruction signals, respectively and wherein said processor is adapted to control the write instruction signal so that the tone waveform

samples are sequentially written into said storage from a beginning of a predetermined storage region of said storage and upon arrival at an end of the predetermined storage region, the writing of the tone waveform samples returns to the beginning of the predetermined storage region and also that a writing location in the storage region indicated by the write instruction signal does not get ahead of a reading location in the storage region indicated by the read instruction signal as discussed in column 8, lines 38-50 and column 20, lines 36-48.

As recited in claims 28 and 41, Kuribayashi et al. disclose a method of generating a tone waveform said method comprising the steps of: generating a plurality of tone waveform samples in advance of predetermined reproduction timing as discussed in column 8, lines 23-30; writing into a storage the plurality of tone waveform samples produced by said generating step, said storage being capable of writing and reading independently of each other, in a parallel fashion as discussed in column 8, lines 38-41 and column 10, lines 15-22; reading out the stored tone waveform samples from said storage at said reproduction timing as discussed in column 9, line 64 through column 10, line 8; and controlling writing and reading into and from said storage by said steps of writing and reading independently of each other and also in such a manner that an advance of the writing does not outpace an advance of the readings as discussed in column 11, lines 47-61.

As recited in claims 30 and 57, Kuribayashi et al. disclose a method of generating a tone waveform based an performance information, using a processor executing a tone waveform forming process, said method comprising the steps of: receiving performance information as

discussed in column 7, lines 30-47; receiving real-time performance information generated in response to a real-time performance operation as discussed in column 10, lines 3-8; generating tone waveform samples using said processor, said step of generating including a step of generating a plurality of tone waveform samples in advance of predetermined reproduction timing an the basis of the received performance information and a step of generating a plurality, of tone waveform samples in advance of predetermined reproduction timing an the basis of the received real-time performance information said step of generating being capable of generating the tone waveform samples based an the performance information and the tone waveform samples based an the real-time performance information in a parallel fashion as discussed in column 9, lines 56 through column 10, line 22, and column 20, lines 16-48; and outputting the tone waveform samples generated being said step of generating as discussed in column 9, lines 6-13.

As recited in claims 31, 58, and 69, Kuribayashi et al. disclose the method, wherein the step of outputting further includes a step of mixing the tone waveform samples based an the performance information and the tone waveform samples based on the real-time performance information to thereby provide mixtures of the samples each of the mixtures being composed of the tone waveform samples to be reproduced at a same reproduction timing, and a step of writing the mixtures into an output buffer as discussed in column 9, lines 6-13 and column 10, lines 15-22.

As recited in claims 32, 59, and 70, Kuribayashi et al. disclose the method, wherein the step of generating further comprises the step of performing arithmetic operations for generating

the tone waveform samples based on the performance information and the tone waveform samples

based on the real-time performance information independently of each other, in such a manner

that an advance of the arithmetic operations for the tone waveform samples based on the

performance information and an advance of the arithmetic operations for the tone waveform

samples based on the real-time performance information differ from each other as discussed in

column 8, lines 51-58 and column 24, lines 35-48.

4.   Claims 34-37, 39, 61-64, 66, 72-75, are rejected under 35 U.S.C. 102(e) as being

anticipated by Kurata (5,677,504).

As recited in claims 34, 61, and 72, Kurata discloses a method of generating a tone

waveform using a processor capable of executing a plurality of different programs on a time

divisional basis said method comprising the steps of: supplying said processor with application

software including at least an image control program for controlling image display, a music

control program for controlling tone generation and a general control program, said music control

program including tone color data as discussed in column 3, lines 18-24; and causing said

processor to execute, under control of by the general control program, the image control program

and the music control program in a parallel fashion, to output image data generated as a result of

execution of the image control program, and tone waveform data generated as a result of

execution of the music control program as discussed in column 3, lines 32-43.

As recited in claims 35, 62, and 73, Kurata discloses the method, wherein the supplying step further comprises the step of including in the music control program, within the tone color data, waveform data pertaining to at least one given tone color as discussed in column 2, lines 26-42.

As recited in claims 36, 63, and 74, Kurata discloses the method, wherein the supplying step further comprises the step of including within the music control program, a tone waveform generating program for generating tone waveform samples on the basis of performance information as discussed in column 2, lines 26-42.

As recited in claims 37, 64, and 75, Kurata discloses the method, wherein the supplying step, further comprises the step of including with the application software directed to at least one of a karaoke and a game as discussed in column 3, lines 9-17.

As recited in claims 39, 66, and 77, Kurata discloses the method, wherein the supplying step further comprises the step of supplying the application software to said processor by setting in said processor a transportable medium (3) storing the application software as discussed in column 3, lines 12-14.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 38, 65, and 76, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurata.

Kurata is discussed above. Kurata does not disclose the use of a communication network.

With respect to claims 38, 65, and 76, Official Notice is taken with respect to it being well known in the art to connect devices which have computers or processors, including games and karaoke machines, to a communication network.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the well known teachings in the art with the apparatus of Kurata, because the use of a communication network allows access and operation from a remote location and interactive operation.

Allowable Subject Matter

7.   Claims 1-25 and 43-56 are allowed.

8.   Claims 29, 33, 40, 60, 67, 71, and 78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
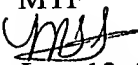
Response to Arguments

9. Applicant's arguments with respect to claims 1-78 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon Fletcher whose telephone number is (703) 308-0848.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi, can be reached on (703) 308-3370. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MTF

June 12, 2001

MARLON T. FLETCHER
PATENT EXAMINER